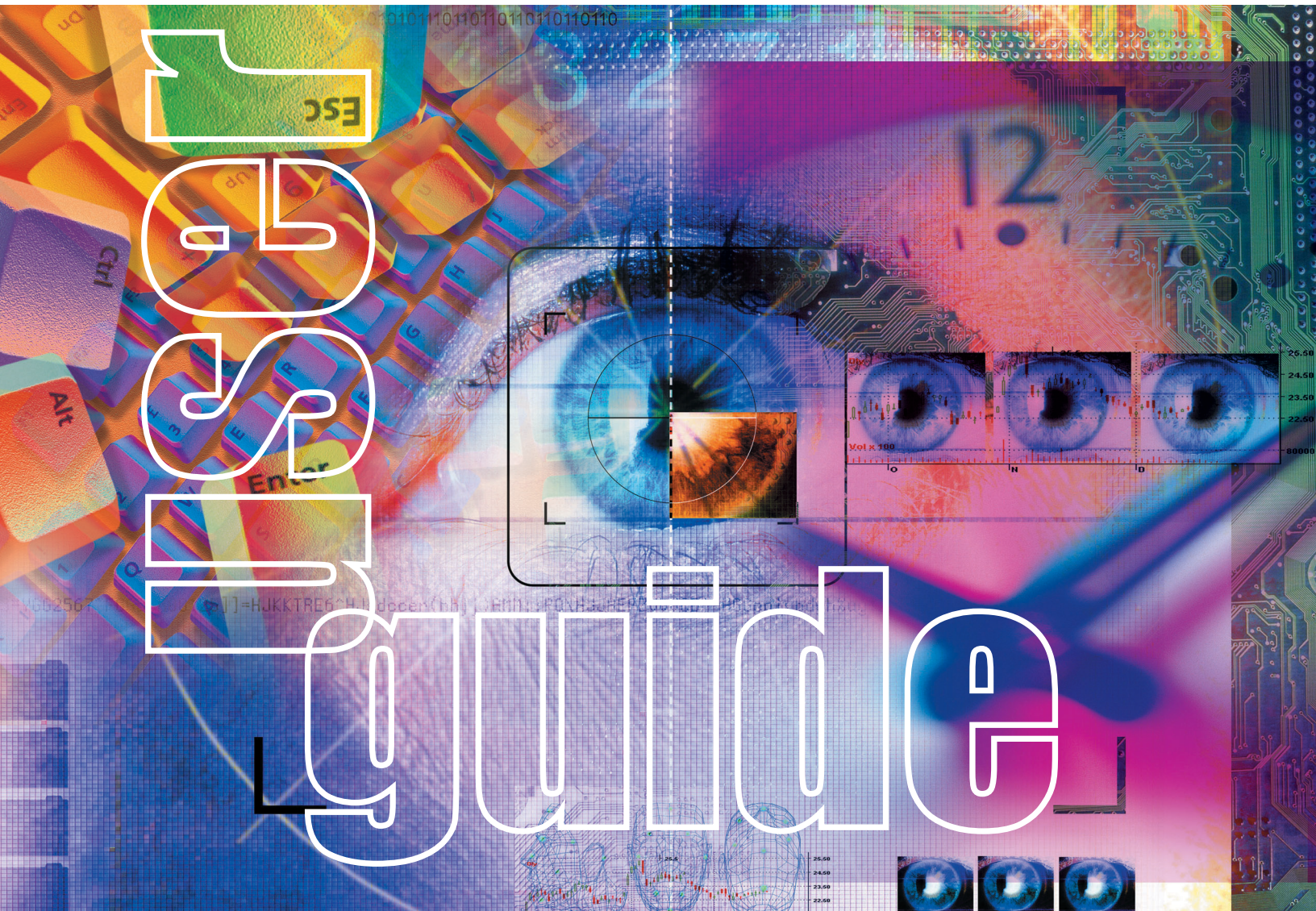


Business Process Management and Workflow



Authored by



**STRATEGY
PARTNERS**

for



AIIM
International

The Enterprise Content Management Association

Business Process Management and Workflow

An AIIM User Guide
Authored by Strategy Partners

This is one in a series of User Guides from AIIM International, authored by Strategy Partners. They are intended to educate and inform potential purchasers and users of document and content systems at an initial level, and position the technologies within a business context.

They are designed to explain:

- How document and content technologies work.
- How they are justified in business terms and what difference they make to the bottom line.
- How they are used operationally and what constitutes best practice.
- How they relate to and integrate with other aspects of IT.
- The roles of operational users, the IT function, system integrators, and other service providers in the document and Web content management space.

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Business Process Management & Workflow

AIIM User Guide

Introduction to Business Process Management and Workflow

Business Process Management and Workflow systems are fundamental to Information Technology. They provide technologies, software components, applications, and solutions that:

- ▲ Describe the processes used by an organization to carry out fundamental tasks, such as customer service, so that they can be optimized and improvements in efficiency and effectiveness enacted routinely.
- ▲ Provide mechanisms for workers and management to measure how well tasks are being performed, so that metrics can be applied that identify problems and provide techniques that can improve performance.
- ▲ Capture the know-how of organizations. That is, encapsulate explicitly the knowledge inside an organization of how they do things so that this knowledge can be exploited for new applications and transferred to be re-used elsewhere. While data and document systems are particularly capable of describing content, they are useless without specific processes to update, store, deliver, and exploit them.

Business Process Management is a new term that covers a portfolio of functions and approaches that includes techniques to integrate the processes within multiple applications, across companies, and between companies. It includes Boardroom components that assist executives in managing the business, workflow, and process enactment systems, and ad hoc approaches.

Workflow, as defined by the Workflow Management Coalition (WfMC), is the automation of a business process, in whole or in part, during which documents, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.

Workflow as component software may be said to have come of age. The core technologies are mature and the understanding as to how to deploy them effectively is well developed. Such systems have developed a strong reputation for delivering pragmatic return on investment, as well as for equipping the organization to face the vision that is the eBusiness age.

This Guide sets out to explain in straightforward terms how Business Process Management and Workflow works, where and how it delivers real benefit to organizations, and the key current and emerging applications and technologies that make it an investment for the future as well as for the present.

Business Process Management and Workflow: What is it?

Origins

The origin of describing processes so that they can be automated stems from industrial manufacturing engineering techniques described by Taylor* in the 1940s, and later developed as simultaneous or concurrent engineering.

* Frederic W. Taylor, *Principles of Scientific Management*, Harper and Row.

Workflow as a term, and its manifestation in document systems, stems from products developed by FileNet Inc. in California in the 1980s. It was one of the early pioneers of using imaging technology for commercial purposes. Its WorkFlo product was developed to describe and control the way information could be distributed and controlled, once the technical problems of scanning images and displaying, storing, and routing them around networks were solved.

A workflow management system is defined as a system that defines, manages, and executes “workflow” through the execution of software whose order of execution is driven by a computer representation of the workflow logic. For the purposes of this guide, this is interpreted as the software and services related to the types of workflow listed below, which is narrower than the definition above in the sense that business application systems that include workflow logic, but are not offered as generic workflow tools, are excluded.

Workflow system types included in the definition are:

- ▲ **Case-handling workflow systems** that deliver the documents, process support, and other information to case managers involved in similar, but not repetitive, high volume work.
- ▲ **Transaction-oriented workflow engines** which define, automate, and deliver workflow instructions in systems based on a model or database that provides Boolean and linear models, typically optimized for high-volume, repetitive processes.
- ▲ **Mail-based systems** that employ an email backbone to carry out the routing of the process.
- ▲ **Business process modeling systems** used to define and describe high-level business processes. Most of these do not automatically control the processes they describe, but link to a transaction-oriented system execution engine.
- ▲ **Electronic forms-based products** that use the paper forms paradigm to create and control the process.

In the context of document and content management systems, workflow as a software component does not include:

- ▲ **Mail and groupware systems**, such as Lotus Notes/Domino, Microsoft Mail, and Microsoft Exchange.
- ▲ **Relational and other structured database systems**, such as Oracle, Informix, and Sybase.
- ▲ **Personal scheduling and planning systems**, such as Lotus Organizer, and Microsoft Project.
- ▲ **Enterprise Software applications**, such as CRM and ERP, e.g., SAP, Oracle Financials, and PeopleSoft.
- ▲ **Application development systems**, which sometimes describe process but do not provide a mechanism to manage processes.
- ▲ **Process management and project planning systems** from the financial, chemical, and manufacturing sectors, which can describe and control processes or physical resources, but are not applicable to generic business processes.

As a result, workflow tools have been developed with the automation of different types of structured, informal, and on-linear processes in mind. In practice, the large majority of systems that currently populate the workflow market are used to describe and automate structured, linear, predictable, and repetitive

processes described using Boolean logic. Academic research continues into describing businesses as a series of non-linear processes, but few mathematical models so resulting have produced commercially significant solutions.

Business Process Management is defined for the purposes of this guide as a business function that provides management with a portfolio of information about its key end-to-end business processes, so that they can determine the future tactics and strategies of the organization. Management and economic issues, rather than technological ones primarily drive it. Clearly, the scope and value of business process management differs significantly between users. For executive management, BPM is a term for a new set of components, solutions, and services that can enable the development and enactment of business strategies. For operational staff, BPM includes workflow systems and less formal, ad hoc systems such as email and newswires that involve processes implicitly.

Major applications and uses

The “killer” application for workflow has been the processing of customer transactions in the financial services industry, whereby clerks can gain access to electronic databases and electronic images of paper correspondence and forms. They are thus empowered with all relevant customer, product, and process information so that accurate fulfillment decisions can be made quickly. This leads to enhanced customer service, which is a key market differentiator in insurance and banking products.

Similar structured applications, such as loan processing in banks, pension plans, bill payment for utilities companies, and social benefits and immigration control systems for governments can equally well be automated, producing gains in efficiency and effectiveness.

Processes in business reflect the nature of the business, and have fundamentally different parameters. As illustrated in Figure 1, above, processes can be categorized in the following ways:

Complexity of Process

Processes can only be described, measured, and optimized if we can understand them. Although the processes that underpin relatively routine business functions, such as accounts payable, loan applications, and claims processing, are relatively well established in paper, they can benefit greatly from the application of electronic workflow. Some processes, like the impact of business confidence upon stock markets, future

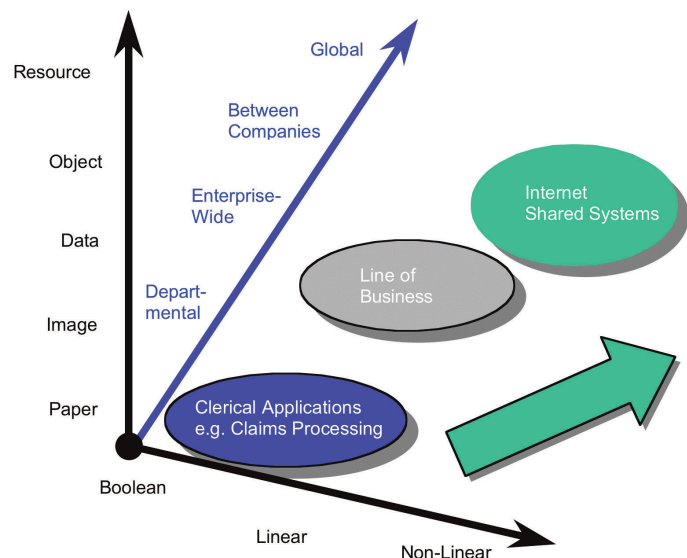


Figure 1: Business Process Management and Workflow Categorized

of the exchange rates, changes in local weather, and the behavior of children, are known but are not predictable or linear in the mathematical sense. In practice, workflow and BPM tools address the following:

- ▲ **Boolean Logic approaches**, which underpin most products in the market today. These provide a mechanism for breaking down most linear business processes into a set of systematic steps and decisions that use simple Yes/No, Stop/Go, If /Then logic statements. These can be expressed graphically by a flow chart. They are good at bridging between the world of administration and IT, and include real world events and people.
- ▲ **Linear approaches**, which extend from the Boolean logic approaches, extend the scope of decisions. For example, if an event happens in a market, such as the price of gold rises, a linear approach system would trigger a message to a broker in New York to sell oil stocks and a manufacturer in Germany to increase production of watches. The route of the information depends on the value of the information, for which the answer could be None, 42, or Three Weeks From Thursday. We can predict the outcome, but it is not necessarily Boolean in logic and the process cannot always be explicitly written down in detail before the event. This is a key area of expansion for workflow and the reason why the market for Business Process Management has emerged.
- ▲ **Non-linear approaches** are geared towards processes that, quite simply, are so complex or subject to such changes in strength and direction that we cannot describe, model, measure, or react to them. Solving global warming and world poverty can sometimes seem simpler than predicting stock markets, so few workflow and business process management systems today attempt either, explicitly. The key point here is to set expectations and not over-sell linear systems. Interestingly, new approaches to provide process-monitoring systems to handle processes previously considered too complex, such as Straight Through Processing (STP) in banks or the Human Genome in medicine, are emerging and the boundaries are being re-drawn every month.

Scope of Users and Business Organization

Early workflow systems were aimed at replacing paper with electronic images and using electronic networks to connect people within a single function or department. Approaches that evolved throughout the 1990s included:

- ▲ **Systems that connect across entire enterprises**, so that underwriters in New York can provide the decision data for insurance claims processing carried out in Ireland or India-round-the-clock services providing outcomes in hours that previously took three days. Note that these systems also connect different functions, such as front office call centers and field sales staff with back office administrators, across a single process.
- ▲ **Systems between companies and across industries** that allow international stock markets, foreign exchanges, and multinational businesses to exploit Workflow and Business Process Management systems to leverage their multi-country manufacturing and financial services capabilities. They connect events in one country (e.g., a company acquisition) to trigger decisions in another organization (e.g., a stock trader to buy or sell) with yet another (e.g., pension provider to increase annuity).
- ▲ The same sort of **global processes** can result in a change on the exchange rate triggering an increase in the value of a car so that a factory in Korea increases production and a component

maker in Japan hires more staff. In terms of uptake and maturity, numerous management school studies have shown how the manufacturing industry in the post war period has developed and implemented and gained significantly from approaches such as Kanban, Lean Thinking, and Enterprise Resource Management. Unfortunately, the relative rates of adoption in many financial, government, and administrative functions are low and most have yet to update their approaches or gain many of the benefits.

Scope of Control: Information as Well as Physical Resources

Business Process Management and Workflow originally developed to pass images around departments, but users and vendors soon realized that the same process logic could manage electronic documents such as Word files, extracts from legacy databases, and latterly, Web content.

At the same time, real-world applications needed to integrate physical resources such as people, production lines, trading systems, transportation, and any external business resources.

In reality such systems tend to have process systems already inside them, either explicitly or implicitly. So as the scope of control has increased, the need has emerged to connect processes across multiple systems, without increasing apparent complexity to operators.

This is often addressed by providing mechanisms to transfer process between systems, and a plethora of mechanisms to interconnect systems has emerged. XML is a key enabling technology for this, but the great thing about XML standards is that there are so many of them.

Workflow can be categorized by level of control and by value (see Figure 2 above). For example, many processes are controlled by a primary user or group of users, where the value is in routing information between people so they can coordinate actions and collaborate more effectively.

Applications that fall into these categories include change control mechanisms in production lines, the preparation of technical documents, and the management of projects. In these applications, the primary process value is effective routing; they rarely explicitly describe what action is to be carried out at each stage in detail, but instead focus on the delivery.

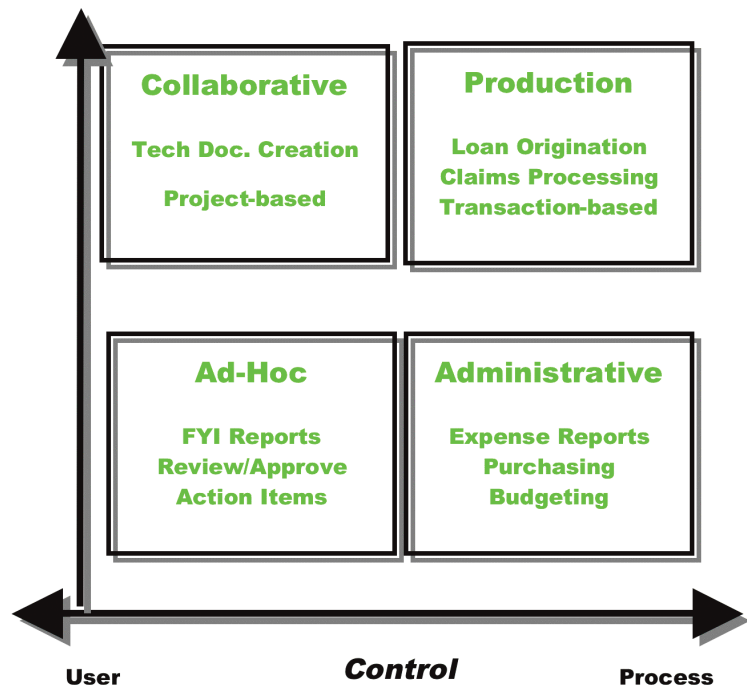


Figure 2: Workflow applications categorized by level of control and value

Other process applications that depend on the routine completion of transactions define exactly which activity is to be carried out at each stage and the result is a decision that routes the process to the next step. This is typical of processing invoices in the accounts payable function in large companies or in dealing with pension and employee rights queries within the human resources function. It applies to insurance quotation and claims handling, processing new loans in banks, administering social security and benefits in the government sector, and collecting bill payments in the telecoms and utilities sectors. Here, the challenge is to provide consistently higher levels of service and fulfillment as well as lower operational risks and fixed overhead costs.

Enabling Technologies

Key Features of Workflow Systems

Workflow systems can be simplified into components as follows:

- ▲ A workflow system including a state change engine, i.e., a mechanism to describe a process and control it, in both the current state and stage of a process and in potential future states.
- ▲ A list of IT-related and non-IT resources that the process controls. In administrative systems, that may be images of paper documents, existing formal and informal procedures, customer files, policies, etc. Non-IT resource could include transportation systems, document production systems, code generators, and other forms of external triggers.
- ▲ An organizational model that describes the roles of the staff, deputies, and assistants as well as delegation rules so that processes can interface with the human players and their status and responsibilities. Note that in some systems the organizational model deployed can be unique to the system or extended or duplicated from existing organizational models, such as IT security and access systems, email address hierarchies, human resources systems, etc.

The technical components of a workflow system (see Figure 3 below) are comprised of:

- ▲ A workflow enactment service, which is a software service that consists of one or more workflow engines in order to create, manage, and execute workflow. This links to other IT systems through Application Programming Interfaces (APIs) that the WfMC has defined.
- ▲ Process definition tools, which provide mechanisms to capture, describe, and design new processes. Early approaches involved coding and scripting, but modern approaches use simple graphical tools similar to logic diagrams, project planning systems, and desktop presentation components. More advanced systems use graphical simulation and immersive interfaces to increase visual impact and assimilation.
- ▲ Administration and monitoring tools that provide the operators of the system with mechanisms to ensure the availability, performance, and operation of the software services provided by the workflow system. More advanced approaches integrate the workflow systems with conventional IT systems management practices to provide ways of ensuring security, reliability, backup, and recovery in the event of the services stopping or ceasing to function correctly.

- ▲ The workflow client application which interacts with the workflow enactment service, requesting facilities and services from it. These interactions may request information, handle worklists, retrieve data, or extend or suspend processes.
- ▲ Invoked applications that automate an activity to support a workflow process. They carry out a task separate from the workflow service but under its control, and present the results back for the workflow service to manage. In a loan processing application, a typical invoked service might be a credit check, which is performed separately from the loan workflow service and reports the result back to the service.

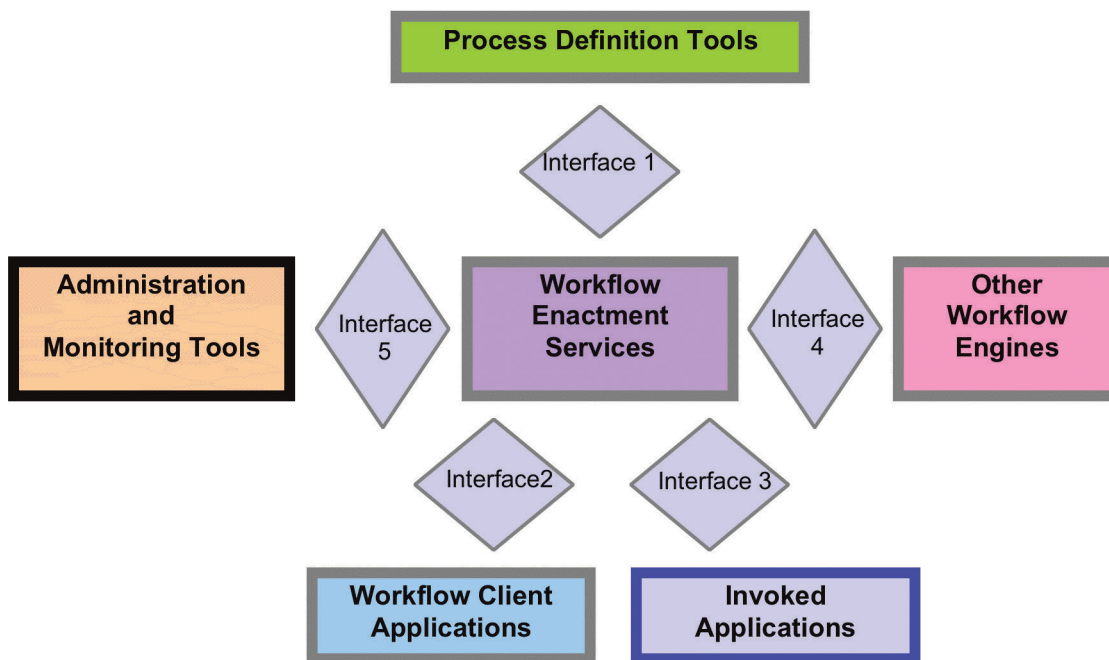


Figure 3: The Workflow Reference Model

Source: Workflow Management Coalition

- ▲ Other workflow engines which can be connected to the workflow service through an API that enables process information to be exchanged and the processes engaged and managed. In previous systems, such interfaces were proprietary and specific to each system. Recent approaches, including those developed and promoted by the WfMC, contain standard definitions of process interchange so that ERP systems can communicate with personnel, stock control, and accountancy systems, for example.

Workflow and Business Process Management can be seen to have developed across three organizational boundaries. The first, started in the 1980s, was process efficiency bounded in the back office of single departments in large organizations. Processing loans in a bank is a good example of that. In technical terms, this involved replacing paper with electronic imaging systems and integrating these with loan administration systems.

The second boundary that was crossed in the 1990s was across enterprises, whereby workflow became business “middleware” that connected systems together to produce additional benefits. In the example of loan processing, this enabled customers of one banking product (a loan) to be sold additional products (a credit card) and allowed sales staff and call centers to be involved in the processing of customer correspondence, not just the back office loan clerks. In technical terms, this involved integrating loan processing systems with credit card, call center, and CRM systems, creating the need to standardize ways of defining what workflow is and how it can be integrated, as described in Figure 4 below.

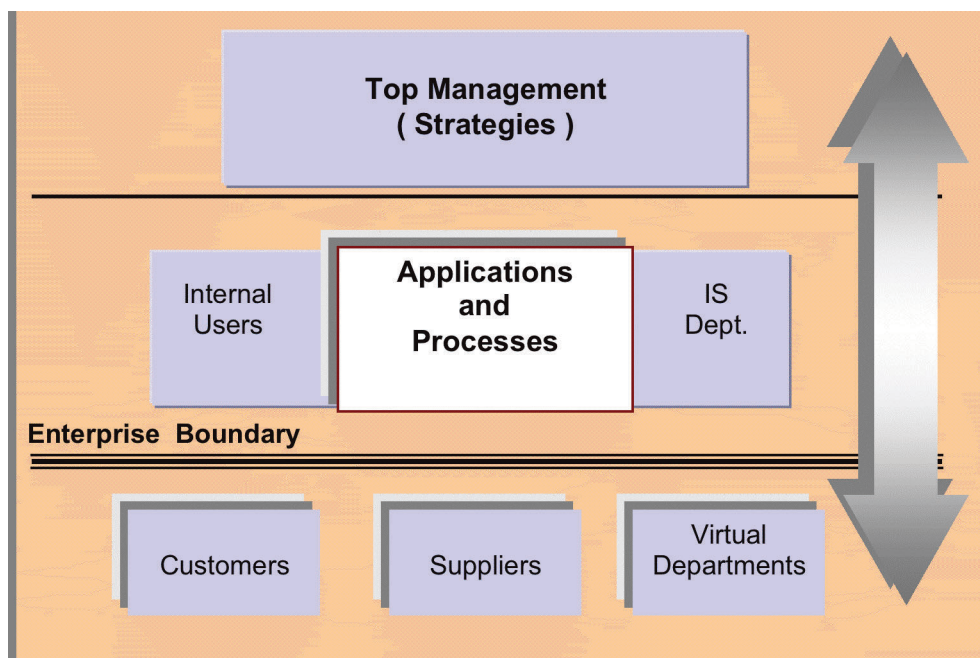


Figure 4: Key features of Business Process Management Systems

The third boundary to be crossed is between organizations so that current and new eBusiness can be conducted at a faster pace and lower cost than previous approaches that involved disconnected communications such as paper or email. The role of the Web as an infrastructure to support this and technical standards, such as XML, are crucial enablers. In the loan processing example, this could take the

form of integrating the information known about a customer to sell loans and also design and provide products that could be provided from an insurance company. The original loan provider would receive commissions from the other companies, such as an insurance or pension product, for exploiting the knowledge of the customer.

Technically, this would take the form of a process interchange between the loan company and the insurance company so that the customer would see a single process although more than one product provider is involved. This requires network connections between users and loan and insurance companies, agreed process descriptions and responses, and secure transfer of data to meet regulatory requirements.

Why and Where are Business Process Management and Workflow Important?

Business Process Management and Workflow are critical in paper or content intensive applications. These include such diverse areas as:

- ▲ **Customer services and fulfillment**—Strategy Partners' independent market research has shown since 1996 that customer service is the single biggest reason to deploy workflow systems.
- ▲ **Regulatory compliance**—This is becoming an increasingly complex requirement for most companies. Workflow and BPM provide cost effective mechanisms to build such compliance into everyday operational systems, rather than provide ad hoc reports for compliance after the regulated event has taken place.
- ▲ **Accounts processing**—In spite of the promise of EDI, most companies still process accounts externally on paper, and few meet the expectation of non-accountants. Workflow is a key enabler in being able to lower operational risk and ensure repeatable, reliable, and secure accounts processing that can integrate with purchasing functions to lower overhead and fixed costs.

Sector Trends and Applications

- ▲ **eGovernment** is being embraced with fervor by the governments of North America and Europe to connect their citizens electronically to government information and services. Workflow can dramatically lower administration and transaction costs to manage immigration, collect taxes, and provide services to citizens. Business process management systems can provide the awareness to manage the overall effectiveness of new approaches, so that the services can be measured, monitored, and improved.
- ▲ The **Financial** sector was an early adopter of workflow systems for back office processing leading to major reductions in process time and administrative costs and overheads. It is also leading the way in the next generation of BPM systems, manifest in new approaches to Straight Through Processing (STP), reduction of operational risks, and inter-company transaction management exploiting the Web.

- ▲ The **Retail** sector uses workflow extensively to manage inventories, stock control and movement, financial transactions, and staff. Many processes are embedded within specific retail applications, so the need to integrate applications is important if savings are to be made through increased awareness of customer buying habits and lowered costs of merchandising.
- ▲ The **Utility and Telecommunications** sectors are significant users of workflow for customer service and bill payment and collection. The increasing number of products offered and large customer bases involved can no longer be controlled cost effectively by paper-based methods alone. New approaches include using workflow to generate higher quality and more relevant business communications that promote product cross selling and do more than get the billing amount correct.
- ▲ The **Transportation** sector has deployed very large systems to handle passenger ticket reconciliation and to track the movement of people and goods so that higher levels of service and revenue can be achieved.
- ▲ Just as the **Manufacturing** industry led the way in automating production from large stand-alone machines to integrated MRP and ERP systems, they are leading the way towards using workflow and BPM to remove islands of process knowledge and integrate inter-company supply chains.
- ▲ **Pharmaceuticals and Life Sciences** use workflow to set up and control the processes of clinical trials, change management of production systems, preparation and submission of regulatory reports, and marketing campaigns. These all involve integrating processes from more than one workflow system, so many pharmaceutical companies have significant experience in this area.
- ▲ The **Media** sector has used workflow to plan and control the production of new campaigns, as well as their re-use and deployment in multiple formats and markets, and in managing the creative process for new advertisements.

Best Practice in Business Process Management and Workflow

Implementing workflow always looks easier beforehand or from the outside. Most of the technical problems with workflow as IT services have been solved, and new opportunities for deploying workflow are emerging faster than many companies can exploit them, as the list above shows.

Other issues include:

- ▲ **The risk in changing the role of people**—The operational aspects of workflow frequently results in changing roles and responsibilities of the people involved in the process and may require them to attain new skills. Resistance to change should be expected and requires effective management.
- ▲ **Shortage of experienced product and service companies**—Operational experience of workflow is not readily available on the supply side of the IT community. The simplest analogy is the different skills required to make an airplane as compared to flying one. In reality, most product and service companies know how workflow works technically but have limited operational experience, as their business models promote an approach that focuses on marketing and rewards initial sales. As a result, many suppliers are not optimized towards helping users get the most benefit. This in one area that Strategy Partners believes will change significantly in the coming year.

- ▲ **Lack of IT department experience**—Many IT groups face similar challenges as their core competence changes from cutting code to assessing business risks of new technologies.
- ▲ **Impact of change**—Users do not always know what their key processes are, and may have little experience in defining business metrics. Examining such fundamental issues requires people skills and asking, “How do we do things?” and “Why do we do them like this?” is not for the faint-hearted. It can open old wounds and create tensions not normally encountered in routine backoffice data processing. So good practice ensures that suitable resources are made available and not presumed or considered lightly.
- ▲ **Mergers and acquisitions**—Many businesses merge or acquire and promise shareholders significant savings which rely on integrating businesses and removing costs. Exploiting workflow can help accomplish these goals, either by providing new ways to design and build new systems or by saving the cost of replacing everything and disrupting ongoing operations by integrating systems together.
- ▲ **Project creep**—Users implementing workflow should be careful to scope the project and manage expectation. One pitfall is to allow the project to include additional aspects that have merits on their own but increase the overall risks. This often applies to administrative tasks which do not always need to be obliterated and completely automated, but can be introduced in phases to give users time to experience new ways of working and test processes, without risking the entire operation.
- ▲ **Metrics**—Measure before you start, not after you have changed the process. It seems obvious, but few implementers do so. Without knowing how well a previous approach was working, how can a new approach ever be judged a success?

Return on Investment/Total Cost of Ownership

The Value of Business Process Management and Workflow

Any evaluation of the return on investment for Workflow and Business Process Management systems revolves around the following benefits:

- ▲ **Quantifiable cost savings**—such as saving the cost of physical resources, e.g., staff, as a result of carrying out operations more efficiently and effectively. The savings gained by replacing traditional paper processing with workflow and document management-based administration systems are typically 30-40%.
- ▲ **Indirect savings by increasing the speed of the business cycle**—or “business velocity,” e.g., giving customer service staff access to customer correspondence on call center screens, so that requests can be handled in minutes while the customer is on the telephone. The value in terms of customer satisfaction, resulting market share, and client loyalty depend on the applications, but far exceed the direct cost savings.
- ▲ **Business survival**, particularly in the areas of compliance and customer service. For example, providing timely evidence concerning safety certificates, tickets used, financial assets transferred, and other mission critical documentation can make the difference between continuing in business, being shut down by the regulator, or, as some are finding out, spending time in the penitentiary.

What is Changing Now and Over the Next 12-24 Months?

The key aspects of Business Process Management and Workflow today are documented above. Major trends in the coming two years include:

- ▲ **Business Process Management and Workflow as part of Application Integration.** Many users have realized that the riskiest part of IT is in integrating applications together, and many vendors have resisted providing capabilities to make this simpler and cheaper. In the past they have increased revenue by forcing users to extend current systems rather than buy from other vendors. Workflow and business process management are playing a key role in enabling the costs and risks to be reduced.
- ▲ **Web Services** is an example of new approaches that promote the integration of applications across the Web. Formed by a consortium of key vendors in 1999, Web Services is an initiative aimed at linking systems from disparate vendors, and hopefully avoiding the sort of IT industry vendor wars of the 1980s and 1990s (e.g., mainframes vs. personal computing, NT vs. Unix, Netscape vs. Microsoft browsers, etc). The results are yet to appear, but early signs include new ways of describing processes (see WSDL in Appendix).
- ▲ **Simulation systems** enable users to experiment and evaluate processes without having to implement fully, so that the costs, risks, bottlenecks, and resources required can be evaluated fully. Increases in computer processor power and advanced visualization techniques can create the business equivalents of flight simulators, so that managers can plan for success and avoid the operational equivalent of crash landings.
- ▲ **Process Extraction systems** sit above current operational and decision support systems and analyze existing processes. Using advanced mathematical techniques they study the behavior of current systems and derive a model to predict behavior, so that future systems can be exploited in new ways. These techniques are in their infancy but show promise.
- ▲ **Boardroom components** are a new sort of process system designed for the senior executives of companies to describe and implement “top-down” processes. Unlike the first generation of workflow systems that focused on automating clerical processes rather than management, Boardroom components can combine relevant information on events, resources, and markets and generate triggers that set the course for the company at a macro level. Early approaches are emerging in specific markets, e.g., banking and manufacturing, where process technologies are key enablers.

How Do You Buy Business Process Management and Workflow?

Software vs. Solutions vs. Process Outsourcing

The value of Workflow and Business Process Management lies in the application, not the components. This means that partners and solution channels take on a particular importance. Strategy Partners’ research indicates that suppliers for Workflow and Business Process Management split into four major types:

Software Vendors

Many Business Process Management and Workflow vendors sell directly to end users, as well as through a

combination of delivery channels (see below). When selling direct, they offer professional services and take responsibility for the final system, including associated hardware, software, and support. Users go to vendors directly with complex requirements that are essentially process-centric—claims processing for insurance and loan application processing for banking are typical examples.

Generalist Integrators

These manage very large project deployments and tend to focus on the high-level business restructuring, reengineering, and change management. In general, they lead (are prime on) major government and/or international contracts and provide systems integration skill, including some Workflow and Business Process Management capabilities. In practice, their capabilities to build specific systems can be limited and they tend to bring in specialists to carry out the Workflow and Business Process Management application building and operational testing parts.

Specialist Integrators / Solutions Providers

These operate in specific applications, vertical market areas, or geographic regions. They seek to deliver whole solutions into their core market. Such solutions tend to have Workflow and Business Process Management as an important, but not overriding component within the overall solutions offered. Examples include customer relationship management systems, accounts payable applications, and insurance claims processing.

Specialist Outsourcers and Application Service Providers

These exist at three main levels:

▲ Specialist Service Businesses

These offer specific single functional services, such as mailroom services, accounting, contracting, systems development and operations, or other function-based services. They sell on economies of scale and on speed/reliability.

▲ Managed Services Providers (MSP)

MSPs set out to deliver documents, data, and process into some part(s) of a business process. As an example, they may take incoming mail, process it, validate it, return anything that needs to go back, handle some customer interactions, and feed the relevant information into their client's business process(es).

Other examples include document hosting and electronic bill presentment services. It works best where there is an opportunity to implement an annuity, or "pay per click" pricing model. Their business model is to find replicable services solutions that drive down the cost of service through economies of scale.

▲ Business Process Outsourcers (BPO)

The key difference between BPO providers and MSPs is defined by business outcome vs. technical or functional output. For example, sending out an invoice is a functional output. Handling the accounts receivable process on behalf of a client is a business outcome. The systems approach is largely the same—the difference lies in the value of the outcome to the client and in the level of understanding the BPO provider has of its clients' business.

Emerging areas for this level of service are to be found in insurance claims management—with the provider being compensated on reduced costs of processing, rather than numbers of claims processed—and mortgage processing, where the business metric might be based around cost of processing, speed of offer, and/or levels of default.

How to Plan for the Future

Some key guidelines:

- ▲ Most organizations have a strong understanding of their key processes, but it is rarely explicit. One reason for this is that staff at all levels need a common vocabulary and well defined expressions so that implicit events and actions can be expressed within a process framework. The trick is to use existing approaches and industry terms from the major standards organizations (see Appendix), rather than invent new ones.
- ▲ Many users expect too much of workflow systems because real world events are rarely as predictable as the best-designed systems, and no single process component product is ideal at everything. Realists should expect users to adopt different tools for specific business processes and avoid wallpapering their companies with a single “one size fits all” approach.
- ▲ Most successful implementations rarely describe and implement processes in detail in the first phase, but develop overall models and drill down into sub-processes as costs justify and experience dictates. Projects that create flowcharts for everything that moves rarely move anything, and are always playing catch-up with the real world.
- ▲ Expect Workflow and Business Process Management to become widespread across companies and between companies in the next three years, as the Internet makes systems more accessible and new products emerge. So expect systems and processes to change, and expect to update processes routinely, not by exception.

Summary

Business Process Management and Workflow are a critical set of technologies that:

- ▲ Bring your eBusiness and conventional business processes into alignment.
- ▲ Provide the catalyst for improved customer service and exploitation of knowledge bases.
- ▲ Deliver explicit measurable bottom line benefits in a wide variety of business cases.

Business Process Management and Workflow are not just about moving documents around faster. Today, the technologies and the business environment have reached the point where Workflow and Business Process Management can play a real role in front line mission-critical business processes. Precisely how users source implementation and fulfillment services depends on their position and organizational culture. The kind of solutions provider depends on the level of the application being addressed; the level of outsourced service depends on whether the requirement is for a document, a reliable service, or a business outcome.

Glossary of Terms

B2B/B2C/G2C

Business to Business, Business to Consumer, Government to Citizen

Segments of Internet-inspired markets.

BPMI.org

The Business Process Management Initiative

A non-profit corporation that empowers companies of all sizes, across all industries, to develop and operate business processes that span multiple applications and business partners, behind the firewall and over the Internet. The Initiative's mission is to promote and develop the use of Business Process Management (BPM) through the establishment of standards for process design, deployment, execution, maintenance, and optimization.

Browser

A program that allows display devices, usually PCs, to receive and display HTML stream and thus access the Web.

CORBA

Common Object Request Broker Architecture

OMG's open, vendor-independent architecture and infrastructure that computer applications use to work together over networks.

CRM

Customer Relationship Management

The processes by which an organization attracts and retains prospective customers, leveraging an initial transaction via knowledge of their requirements into a long-term, ongoing transactional relationship to the financial good of the organization.

EDM

Electronic Document Management

The set of technologies for electronically managing documents-incorporating Document and Content Capture, workflow, document repositories, COLD/ERM and output systems, and information retrieval systems.

Imaging

electronic imaging, document imaging

A system that creates, stores, retrieves, and manipulates electronic images. It may include scanning and OCR functions.

OMG

Object Management Group

An open membership, not-for-profit consortium that produces and maintains computer industry specifications for interoperable enterprise applications.

WARIA

Workflow And Reengineering International Association

Chartered to identify and clarify issues that are common to users of workflow and electronic commerce, and those who are in the process of reengineering their organizations. The association facilitates opportunities for members to discuss and share their experiences freely. Established in 1992, WARIA's mission is to make sense of what's happening at the intersection of Business Process Management, Workflow, Knowledge Management, and Electronic Commerce and reach clarity through sharing experiences, product evaluations, networking between users and vendors, education, and training.

Web Services

In its generic sense, an IT industry initiative aimed at enabling users to integrate services and applications across the Web. Specifically, it is an initiative called WS-I.org formed by major vendors to bring together profiles of sets of standards to achieve that goal. See www.ws-i.org

WfMC

Workflow Management Coalition

A non-profit, international organization of workflow vendors, users, analysts, and university/research groups founded in August 1993. The Coalition's mission is to promote and develop the use of workflow through the establishment of standards for software terminology, interoperability, and connectivity between workflow products. The WfMC has pioneered the development of workflow and has strongly influenced many of the other emerging standards groups.

WSDL

Web Services Description Language

A draft standard issued as a preliminary note by the W3C, for discussion. WSDL is an XML format for describing network services as a set of endpoints operating on messages containing either document-oriented or procedure-oriented information. The operations and messages are described abstractly and then bound to a concrete network protocol and message format to define an endpoint.

XML

eXtensible Mark-up Language

An established standard, based on the Standard Generalized Mark-up Language, designed to facilitate document construction from standard data items. Now being used as a generic data exchange mechanism.

About AIIM International

The Enterprise Content Management Association

AIIM International is the global authority on Enterprise Content Management (ECM). The technologies, tools and methods used to capture, manage, store, preserve, and deliver information to support business processes.

AIIM promotes the understanding, adoption, and use of ECM technologies through education, networking, marketing, research, standards, and advocacy programs.

As a neutral and unbiased source of information, AIIM is non-profit association dedicated to growing the Enterprise Content Management Industry through its:

Market Education: Expand the global market for ECM solutions. Provide educational programs and information services that help users make informed and effective technology decisions and help suppliers better understand user needs and requirements.

Networking: Through chapters, programs, and the Web, create opportunities that expand the global base of users seeking ECM solutions and allow our user, supplier, and channel members to engage and connect with one another.

Industry Advocacy: Through our own efforts and strategic partnerships, become the global voice of the ECM industry in key standards organizations, with the media, and with government decision-makers.

The AIIM community has a variety of opportunities for you at our Web site at www.aiim.org.

To become part of the AIIM community by becoming a Professional Member, visit www.aiim.org/join.

About Strategy Partners

Strategy Partners is an established professional retainer and project based IT advice business. We deliver independent advice and original market analysis in the key areas of Content Management, Electronic Document Management (EDM), Customer Relationship Management (CRM), Application Integration, Enterprise Resource Planning (ERP) Outsourcing, and Knowledge Management (KM).

As users make investments, we empower them against the vendors to make the technologies 'safe to buy'. We measure, analyze, and understand the purchasing process and know how to speed it up, not slow it down.

In addition, Strategy Partners delivers expert advice to help vendors in formulating and improving their marketing strategies. For the investment community Strategy Partners provides market diligence and acts for organizations seeking Venture Capital. We also work for buyers and sellers in mergers and acquisitions by providing market knowledge and a process to assist in the valuation of businesses.

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About the Sponsors

Corridor Consulting

Corridor Consulting provides strategic consulting, implementation, and post-implementation support services to help organizations manage and share critical information and fundamentally improve their business.

www.corridorconsulting.com
781.229.9933

Documentum

With more than 1600 large, global customers, Documentum is the leading provider of enterprise content management (ECM) software solutions, bringing intelligence and automation to the creation, management, personalization and distribution of vast quantities and types of content—documents, Web pages, XML files, rich media—in one common content platform and repository.

The Documentum ECM platform makes it possible for companies to distribute content globally across all internal and external systems, applications, and user communities while maintaining brand and user experience. Documentum's customers accelerate time to market, increase customer satisfaction, enhance supply chain efficiencies, and reduce operating costs—improving their overall competitive advantage.

www.documentum.com
800.607.9546

DST Technologies, Inc.

AWD (Automated Work Distributor) from DST Technologies, Inc., is a comprehensive business process management (BPM) and customer service solution. AWD helps a variety of organizations (banking, healthcare, mortgage, brokerage, insurance, mutual funds, investment management, and video/broadband) to:

- Improve productivity/reduce costs by focusing people on value-added tasks and automating other activities.
- Provide a 360-degree view of business processes with real-time business intelligence and process analysis tools.
- Provide consistent service across all communications channels.

www.awdbpm.com
800.dst.info

FileNet

FileNet Corporation (NASDAQ: FILE) helps organizations make better decisions by managing the content and processes that drive their business. FileNet's Enterprise Content Management (ECM) solutions allow customers to build and sustain competitive advantage by managing content throughout their organizations, automating and streamlining their business processes, and providing the full-spectrum of connectivity needed to simplify their critical and everyday decision-making.

FileNet ECM solutions deliver a comprehensive set of capabilities that integrate with existing information systems to provide cost-effective solutions that solve real-world business problems. Since the Company's founding in 1982, more than 3,800 organizations, including 80 of the Fortune 100, have taken advantage of FileNet solutions for help in managing their mission-critical content and processes.

Headquartered in Costa Mesa, Calif., the Company markets its innovative ECM solutions in more than 90 countries through its own global sales, professional services and support organizations, as well as via its ValueNet® Partner network of resellers, system integrators and application developers.

www.FileNet.com
800.FileNet

HandySoft Corporation

HandySoft delivers innovative solutions for business process management (BPM) and workflow automation to commercial and government marketplaces. Built on the foundation of BizFlow®, the award-winning BPM platform, our solutions automate and simplify processes, enforce best practices, improve quality and productivity, and foster collaboration internally as well as with customers and partners.

www.handysoft.com
800.753.9343

Hyland Software, Inc.

Hyland Software, established in 1991, is a leading integrated document management solutions provider. Hyland develops OnBase, enterprise-class integrated document management software that combines the technologies of enterprise report management, document imaging, electronic document management and workflow in a single, Web-enabled application. A core infrastructure of enterprise content management, OnBase manages virtually every kind of document (images, reports, statements, application files, Web pages, HTML forms, video, etc.) as well as every stage of the document lifecycle (creation / input, storage, retrieval, revision, distribution and Web publishing). OnBase is used by thousands of organizations, commercial and government alike, to streamline operations, reduce costs and share information with employees, partners, and customers.

www.onbase.com
440.788.5000

ISIS Papyrus America, Inc.

ISIS Papyrus provides integrated and distributed software solutions for enterprise level, mission-critical business document applications for more than 1900 customers worldwide. The ISIS Papyrus technology enables large-scale document applications that support fundamental business processes, such as customer care, customer relationship management, bank statement applications, insurance documents, telecom bill applications, airline miles statements, credit card processing, and customer correspondence. The Web, client/server systems and mainframe environments, all are merged into a single information technology infrastructure.

The ISIS Group was founded in 1988 and manages today 12 subsidiaries in nine countries and has a distribution network for its software products in 42 countries.

www.isis-papyrus.com
817.416.2345

Kofax

At Kofax, we focus on one critical business need: accelerating your business processes by capturing valuable information from throughout your organization and speeding it into your content and document management systems. Kofax is the world's leading provider of information capture solutions. Whether your content is on paper or in electronic files, whether it is in forms or in unstructured documents, whether it is handled at a central site or at offices throughout the world, Kofax can help you capture it all through the Operating System of Capture—an open platform that transforms your documents and forms into retrievable content.

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Business Process Management and Workflow

Business Process Management is a new term that covers a portfolio of functions and approaches that includes techniques to integrate the processes within multiple applications, across companies, and between companies.

Workflow, as defined by the Workflow Management Coalition (WfMC), is the automation of a business process, in whole or in part, during which document, information, or tasks are passed from one participant to another for action, according to a set of procedural rules.

This Guide sets out to explain in straightforward terms how Business Process Management and Workflow works, where and how it delivers real benefit to organizations, and the key current and emerging applications and technologies that make it an investment for the future as well as for the present.



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